

5       **A PROCESS FOR PREPARING AN OLEFIN OXIDE, A METHOD OF  
          USING THE OLEFIN OXIDE AND A CATALYST COMPOSITION**

10      ABSTRACT

The present invention provides a process for preparing an olefin oxide by reacting an olefin having at least three carbon atoms with oxygen in the presence of a catalyst composition containing silver and an alkali metal promoter deposited on a carrier, which alkali metal promoter contains potassium in a quantity of at least 5  $\mu$ mole/g, relative to the weight of the catalyst composition, and a selectivity and work rate enhancing amount of an alkali metal selected from the group consisting of lithium and sodium and mixtures thereof. The invention also relates to a method for making a 1,2-diol or a 1,2-diol ether using the olefin oxide so prepared. Additionally, the invention relates to a catalyst composition comprising silver and a promoter deposited on a carrier.